Book Reviews

ZOOLOGY

The Ecology, Status, and Conservation of Marine and Shoreline Birds of the Queen Charlotte Islands

Edited by Kees Vermeer and Ken H. Morgan. 1997. Canadian Wildlife Service Occasional Paper Number 93. Canadian Wildlife Service, Ottawa. 150 pages, illustrated.

King and Common Eiders of the Western Canadian Arctic

Edited by D. Lynn Dickson. 1997. Canadian Wildlife Service Occasional Paper Number 94. 75 pages. Canadian Wildlife Service, Ottawa.

Both are available, free of charge, from Publications Unit, Canadian Wildlife Service, 4th floor, Place Vincent Massey Building, 350 St. Joseph Boulevard, Hull, Quebec K1A 0H3, Canada.

These two volumes are the latest products in the Occasional Papers series of the Canadian Wildlife Service: the major publishing outlet for science within the CWS. Material thus published complements other scientific literature by making available lengthy descriptive papers and reviews that are deemed to be important to the CWS, but which may not be of sufficient general interest to find a niche in regular science journals. Both of the offerings considered here meet these criteria, as they are largely descriptive and deal with topics generating current concern within the CWS: the conservation of birds in the Queen Charlotte Islands (Haida Gwaii) and the status of Pacific Eiders.

Turning first to Vermeer and Morgan's effort, this volume completes a set of three volumes, all masterminded by Kees Vermeer, that includes *The ecology* and status of marine and shoreline birds of the Straits of Georgia (1989, co-edited by R. W. Butler), and *The ecology, status and conservation of marine* and shoreline birds of the West coast of Vancouver Island (1992, co-edited by R. W. Butler and K. H. Morgan), both published by the CWS. Consequently, this volume can be viewed as Kees Vermeer's farewell to government publishing after a long career as a CWS research scientist (he retired in 1995). With the exception of three freelance biologists, and one university professor, all of the 20 authors involved work for the Federal Government.

In their introduction, the editors characterise the book as "a review of what is currently known about the marine biology of the Queen Charlotte Islands, with particular emphasis on birds." The first four chapters (47 pages) are devoted to physical and biological oceanography and all are authored by scientists based at the Pacific Biological Station, Nanaimo, or the Institute of Ocean Sciences, Sidney: physical oceanography (W. R. Crawford), zooplankton (R. I. Perry, B. J. Waddell), invertebrate fisheries (N. F. Bourne), and marine fishes (G. E. Gillespie, S. J. Westrheim). They give a good overview of the physical systems and the consequent food webs on which the birds survive.

The meat of the book comes in Part 2, "nesting populations of marine birds and distribution of birds at sea", comprising a chapter on reproductive biology, status and conservation of seabirds (Vermeer, A. Harfenist, G. W. Kaiser, and D. N. Nettleship), and on the distribution and seasonality of marine birds (Morgan), together comprising 34 pages. This section is followed by two others including several short papers: on the distribution of brant (R. I. Goudie and M. Hearne), brant and sea ducks feeding on herring spawn (Vermeer, M. Bentley, Morgan, G. E. J. Smith), shorebird migration at Sandspit (Vermeer, M. Bentley, G. E. J. Smith), shorebirds breeding at Masset (J. M. Cooper and E. H. Miller), effects of introduced predators on seabirds (A. Harfenist and G. W. Kaiser), organochlorine contaminants in seabird eggs (J. E. Elliott, P. A. Martin, P. E. Whitehead), and concluding remarks by the editors.

Compared to areas further south, the marine and shoreline birds of the Queen Charlotte Islands are relatively poorly known. This probably accounts for the somewhat fragmentary nature of the bird accounts. In particular, the sea ducks, grebes, and loons, which form an important component of the winter and passage population of marine birds, are hardly dealt with, except in relation to herring spawning. Likewise, the shorebirds using North Beach, Rose Spit, and the beaches of eastern Graham Island, in winter and on passage, get little or no mention. Almost nothing is said of one of the Cahrlottes' most familiar birds, the Black Oystercatcher. Treatment of conservation is also somewhat cursory, with only five pages devoted to the major problem of introduced predators, compared to ten on organochloride contamination: the latter no more than a distant possibility, as far as population level effects are concerned. Other important conservation issues,

such as the logging of Marbled Murrelet breeding habitat and the possible impact of marinas and other shoreline development, are mentioned but not enlarged on.

For anyone interested in the marine and shoreline birds of the Queen Charlotte Islands this will be a useful volume, though less comprehensive than its title suggests. The editors and contributors are somewhat pessimistic in their assessment of conservation needs, and it is always wise to be cautious, but it may be possible to be more optimistic now than when the volume went to press. Two of the major problems identified are being tackled with some success: rats have been eradicated from Langara Island (1996) and an ongoing collaboration between the CWS, the British Columbia Ministry of Environment, and Parks Canada seems to be halting the spread of Raccoons to seabird colonies. Things could get better, rather than worse for marine birds in the Queen Charlottes, and there are not many ecosystems in Canada for which we can say the same.

The volume edited by Lynne Dickson is narrower in its scope than the previous one, being an account of Common and King eiders in the western Arctic, with emphasis on migration, and population status. The compilation is a response to the recent dramatic declines of other Pacific eiders: Steller's and Spectacled, and a perception that we had insufficient knowledge of eider populations in Canada to know whether or not declines were taking place. Two papers deal with migration: a lengthy one by S. A. Alexander, Dickson, and S. E. Westover on spring migration in offshore areas and briefer one by R. Suydam and others on migration observed from Point Barrow, Alaska, which must be passed by all the Canadian western Arctic eiders twice a year in moving to and from their winter quarters in the Bering Sea and Northern Pacific. The last paper strongly suggests a dramatic decline in eider numbers over the past 40 years, from about a million in the 1970s to less than half that by 1994. This is followed by chapters on the breeding biology of Common Eiders (B. J. Cornish, Dickson) and King Eiders (R. C. Cotter, Dickson, C. J. Gratto). The last gives a vivid illustration of why little is known about these birds' breeding: only 17 active nests were found in two seasons of field work by seven people and this is a large bird that nests in completely open habitat! Current estimates of Common Eiders based on known breeding populations are far below numbers based on migration counts, so there is still much to be discovered about the Pacific race of Common Eiders, as well. The volume also includes a paper on King Eider activity budgets on the breeding grounds (A. C. Holcroft-Weerstra) and one on the subsistence harvest of eiders in the Inuvialuit landclaim settlement region (Banks and Victoria islands, and adjacent mainland; M. Fabijan and others). The latter suggests that about 2000-5000 eiders are harvested annually in the region, nearly all of them King Eiders, which are the more numerous species. The authors conclude that over harvest is unlikely to account for current population declines.

It is interesting to contrast the approach of the two volumes to conservation. In the Vermeer and Morgan volume, many potential conservation problems are identified, but only a limited amount of evidence is presented for actual population declines. In Dickson's work the population declines are very evident, but the causes are hardly mentioned because they are presently unknown and the authors seem disinclined to speculate. The eider volume is an important milestone in eider studies, but a combination of concern over population declines and the needs of the Nunavut land claim settlement seem destined to generate much new work on these species. We must hope that accelerated research activity will swiftly produce answers to the unsolved question of what has affected western eider populations.

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A Natural History of Amphibians

By Robert C. Stebbins and Nathan W. Cohen. 1995. Princeton University Press, Princeton, New Jersey. xvi + 316 pages, illustrated, U.S. \$19.95.

A increasing cascade of amphibian books has appeared through the last decade, and this fascinating group of vertebrates, encompassing such diverse life forms as the unfamiliar (to those in the temperate zones) caecilians, the somewhat more familiar salamanders, and the very familiar frogs, seems finally to be receiving the attention so justly due it for unique adaptions, impressive numbers, and ecological importance. Unfortunately, the present emphasis owes most to recent awareness that we may be irretrievably loosing many of them through the causes which we seem largely unable to adequately pinpoint. It is most likely that the reversal of present trends would demand sacrifices in terms of human population levels and lifestyle that enough of us will never be willing to make in time to benefit these animals.

Robert Stebbins and Nathan Cohen are impressive and most welcome contributors to this growing "amphibian decline" literature. Stebbins, long a pro-



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